

UNITED STATES DEPARTMENT OF THE INTERIOR
BUREAU OF SAFETY AND ENVIRONMENTAL ENFORCEMENT
GULF OF MEXICO REGION

ACCIDENT INVESTIGATION REPORT

For Public Release

1. OCCURRED

DATE: 27-JUN-2017 TIME: 2120 HOURS

2. OPERATOR: Chevron U.S.A. Inc.

REPRESENTATIVE:

TELEPHONE:

CONTRACTOR: Pacific Drilling Services Inc.

REPRESENTATIVE:

TELEPHONE:

- STRUCTURAL DAMAGE
- CRANE
- OTHER LIFTING DEVICE
- DAMAGED/DISABLED SAFETY SYS.
- INCIDENT >\$25K
- H2S/15MIN./20PPM
- REQUIRED MUSTER
- SHUTDOWN FROM GAS RELEASE
- OTHER

3. OPERATOR/CONTRACTOR REPRESENTATIVE/SUPERVISOR
ON SITE AT TIME OF INCIDENT:

6. OPERATION:

4. LEASE: G17015

AREA: WR LATITUDE:

BLOCK: 758 LONGITUDE:

- PRODUCTION
- DRILLING
- WORKOVER
- COMPLETION
- HELICOPTER
- MOTOR VESSEL
- PIPELINE SEGMENT NO.
- OTHER

5. PLATFORM:

RIG NAME: PACIFIC SHARAV

6. ACTIVITY: EXPLORATION(POE)
 DEVELOPMENT/PRODUCTION
(DOCD/POD)

8. CAUSE:

- EQUIPMENT FAILURE
- HUMAN ERROR
- EXTERNAL DAMAGE
- SLIP/TRIP/FALL
- WEATHER RELATED
- LEAK
- UPSET H2O TREATING
- OVERBOARD DRILLING FLUID
- OTHER _____

7. TYPE:

- HISTORIC INJURY
 - REQUIRED EVACUATION
 - LTA (1-3 days)
 - LTA (>3 days)
 - RW/JT (1-3 days)
 - RW/JT (>3 days)
 - Other Injury

- FATALITY
- POLLUTION
- FIRE
- EXPLOSION

- LWC
- HISTORIC BLOWOUT
 - UNDERGROUND
 - SURFACE
 - DEVERTER
 - SURFACE EQUIPMENT FAILURE OR PROCEDURES

COLLISION HISTORIC >\$25K <=\$25K

9. WATER DEPTH: 6960 FT.

10. DISTANCE FROM SHORE: 214 MI.

11. WIND DIRECTION: ENE
SPEED: 14 M.P.H.

12. CURRENT DIRECTION:
SPEED: M.P.H.

13. SEA STATE: FT.

14. PICTURES TAKEN:

15. STATEMENT TAKEN:

On June 27, 2017, the Pacific Sharav unintentionally discharged 29 barrels of Synthetic Oil Based Mud (SBM) into the waters of the Gulf of Mexico. The accidental discharge was due to valve misalignment while pumping the deck drain water from the muddy water tank overboard.

The Pacific Sharav was contracted by Chevron USA Inc. and tasked with drilling the PS007 well located in Walker Ridge Block 758, Lease OCS-G-17015. While drilling out cement, the Driller noticed a decrease in standpipe pressure. He contacted the Mud System Operator (MSO) and asked him to check the mud pumps, and the MSO confirmed to the Driller that the mud pumps were working properly. The MSO then returned to his task of sheen testing the water and pumping it overboard in accordance with Pacific Drilling's semi-weekly discharge of the muddy water tank procedure. Soon after talking to the MSO, the Driller noticed a fluid decrease in the active mud pit and called the MSO to have him check the valve alignment. The Driller picked up off bottom to stop drilling, shut down the mud pumps, and sent the Assistant Driller (AD) to investigate the mud system issue. The MSO shut down the transfer of water overboard and closed all valves not associated with the drilling alignment. The AD arrived in the mud pits, and after troubleshooting the issue, the AD and the MSO discovered that the valves had been misaligned while the MSO was pumping water overboard which allowed mud from the active mud system to enter the overboard line.

Bureau of Safety and Environmental Enforcement (BSEE) Inspectors conducted an inspection/investigation on July 3, 2017, and collected documentation for the incident. It was determined that 29 barrels of 14.0 pound per gallon (PPG) SBM was discharged into the Gulf of Mexico due to the misalignment of valves by the MSO. According to documentation and witness statements, the only way for the SBM to get into the overboard line would be for two valves on the low pressure header to be open. These two valves separated the active mud system from the cleaning operation and must have been incorrectly opened while water was being pumped overboard. Additionally, the semi-weekly discharge procedure states that the Mud Engineer is responsible for conducting the static sheen tests on samples as they are prepped for discharge. The Mud Engineer is also tasked with verifying valve alignments to avoid fluid contamination and accidental discharges of hazardous fluids into the marine environment. Without the Mud Engineer to assist in the procedure and verify valve alignment, two valves on the low pressure header were incorrectly opened while pumping water overboard, allowing 29 barrels of SBM to enter the Gulf of Mexico.

Pacific Drilling has since modified the semi-weekly discharge of the muddy water tank procedure to show proper valve alignment, and valve alignment will have to be verified by an individual deemed competent by Pacific Drilling prior to overboard valves being opened. This competent individual will also have to verify proper valve alignment when there is more than one type of fluid in the active mud system. The incident was discussed with all crew members in the Weekly Safety Meeting, and the investigation findings were shared with the entire fleet to prevent a reoccurrence.

18. LIST THE PROBABLE CAUSE(S) OF ACCIDENT:

* Human Error: Two valves were open on the low pressure header, which allowed SBM to enter the overboard line.

19. LIST THE CONTRIBUTING CAUSE(S) OF ACCIDENT:

Failure to follow the approved procedure. The Mud Engineer was not present during the fluid transfer and valve alignment.

20. LIST THE ADDITIONAL INFORMATION:

21. PROPERTY DAMAGED:

N/A

NATURE OF DAMAGE:

N/A

ESTIMATED AMOUNT (TOTAL):

22. RECOMMENDATIONS TO PREVENT RECURRANCE NARRATIVE:

BSEE Houma District has no recommendations for BSEE Region at this time

23. POSSIBLE OCS VIOLATIONS RELATED TO ACCIDENT: **YES**

24. SPECIFY VIOLATIONS DIRECTLY OR INDIRECTLY CONTRIBUTING. NARRATIVE:

An E-100 was issued following this incident:

"On June 27, 2017, the rig discharged 29 barrels of Synthetic Base drilling fluid into the Gulf of Mexico, due to the misalignment of valves."

25. DATE OF ONSITE INVESTIGATION:

03-JUL-2017

28. ACCIDENT CLASSIFICATION:

26. ONSITE TEAM MEMBERS:

**Colin Davis / Gabe Orellana / Troy
Boudreaux / Paul Reeves /**

29. ACCIDENT INVESTIGATION

PANEL FORMED: **NO**

OCS REPORT:

30. DISTRICT SUPERVISOR:

Bryan A. Domangue

27. OPERATOR REPORT ON FILE:

APPROVED

DATE:

22-SEP-2017